

Remarks/Arguments:

Claim 1 is herein amended and claims 2 and 23 are cancelled. Support for the amendment can be found, *inter alia*, in the clean version of the substitute specification on page 3, third paragraph and page 5, first paragraph and original claims 1 and 2. No new matter is added.

Claim Rejections Under 35 USC §§ 102 and 103

Claims 1, 3, 6-8, 9-11, 14-15, 17, 19, 20, 23, and 25 stand rejected under 35 U.S.C. 102(b) as anticipated by US Patent No. 3,699,621 (Clarke et al.). Claims 2 and 4 stand rejected under 35 U.S.C. 103(a) as unpatentable over Clarke et al. in view of German Patent Publication DE-9301059-U (Sulzer). Claims 5, 21, and 22 stand rejected under 35 U.S.C. 103(a) as unpatentable over Clarke et al. in view of US Patent No. 5,919,297 (Lehtovirta et al.). Claims 12, 13, 16, and 18 stand rejected under 35 U.S.C. 103(a) as unpatentable over Clarke et al. in view of US Patent No. 5,365,842 (Panossian). Claim 24 stands rejected under 35 U.S.C. 103(a) as unpatentable over Clarke et al. in view of Sulzer further in view of Lehtovirta et al. Applicants traverse these rejections.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." M.P.E.P. § 2131 citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

"To establish a *prima facie* case of obviousness, ... the prior art reference (or references when combined) must teach or suggest all the claim limitations." M.P.E.P. §2143. Additionally, as set forth by the Supreme Court in *KSR Int'l Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Apr. 30, 2007), it is necessary to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the prior art elements in the manner claimed.

Independent claim 1 recites "[a] web-processing roller, comprising a roller body having at least one hollow space defined therein, wherein the hollow space is at least partially filled with a mixture consisting of a liquid and at least one insoluble co-ingredient in the liquid formed by solid particles wherein the solid particles are a granular solid and the mixture exhibits a pulpy consistency."

As explained in the clean version of the substitute specification at page 4, last paragraph through page 5, the superior and surprising effect achieved by using a mixture according to the invention recited in claim 1 is that cost-effective rollers are manufactured, which can be operated near their resonant frequency and even in the super-critical range.

The Office Action acknowledges in paragraph 19 that Clarke et al. does not teach a mixture that exhibits a pulpy consistency. The Office Action cites to Sulzer as teaching "that the degree of the attenuation depends in particular on the quantity of the moved liquid, the viscosity of the liquid as well as the flow resistance" and that it "would have been a matter of experimentation of a known variable (viscosity) in order to produce a desirable outcome (appropriate dampening)." Applicants respectfully submit that there is not proper support for such a combination and even if the references were combined, they fail to teach each limitation of the claimed invention.

The Office Action fails to provide a reasonable basis why a person skilled in the art would combine the teaching of Sulzer with Clarke et al. Applicants respectfully submit that Clarke et al. teaches away from such a combination.

Clarke et al. describes resilient rollers comprising an annular space (9) between a sleeve (2) and a core member (1) (see fig. 1) which is filled with a material that is liquid under the intended conditions of use of the roller (see column 3, lines 1 to 3). The thickness of the layer of the liquid filling material is preferably within the range 0.01 to 0.35 cm, preferably 0.025 to 0.08 cm, while the metal sleeve has a thickness within the range of 0.03 to 0.3 cm preferably 0.75 mm (see column 2, line 62 and column 5, lines 33 to 42). The person skilled in the art will not consider filling such a narrow space between the sleeve and the core member of resilient rollers with a mixture containing a granular solid and exhibiting a pulpy consistency regardless of the teaching of Sulzer. The space is too small to be filled with such a mixture and the granular solid would most likely indent the thin sleeve of the resilient roller during operation of the roller. The desired properties of the resilient rollers of Clarke et al., i.e. exerting a uniform pressure on the work-piece (see column 2 lines 1 to 16), will not be achieved when using a mixture as recited in claim 1. Furthermore, Clarke et al. does not consider reducing vibrations of the rollers by using a pertinent filling material. A person of skill would not conclude that the annular space of the resilient roller of Clarke et al. could be

filled with the filling material recited in claim 1. Sulzer does not overcome that Clarke teaches away from the claimed invention.

Additionally, neither Clarke et al. nor Sulzer discloses, teaches or suggests "a mixture consisting of a liquid and at least one insoluble co-ingredient in the liquid formed by solid particles wherein the solid particles are a granular solid and the mixture exhibits a pulpy consistency."

The Office Action acknowledges that Clarke et al. does not teach a mixture that exhibits a pulpy consistency. Sulzer describes, *inter alia*, rollers with a sleeve rotably mounted on the core element. Due to the high abrasion introduced by a mixture with a granular solid and a pulpy consistence, the person skilled in the art would be dissuaded from considering such a mixture as filling material.

Furthermore, the Office Action relies on the limited teaching of Sulzer that the amount of liquid and its viscosity as well as its flow resistance are parameters for damping for the conclusion that a mixture containing a granular solid and exhibiting a pulpy consistency is obvious. The use of a mixture containing a granular solid is not disclosed by Sulzer or Clarke et al. There are an infinite number of combinations of materials, structures, sizes and consistencies that would influence the viscosity and flow resistance. Without either reference teaching or suggesting the use of granular solid particles to influence the dampening characteristics, there is no reasonable basis to support the position set forth in the Office Action that it would be mere experimentation to utilize granular solid particles in a mixture that exhibits a pulpy consistency. To the contrary, such a finding, without either reference suggesting the use of solid granular particles to influence the dampening characteristics, is improper hindsight reconstruction.

It is respectfully submitted that Clarke et al. and Sulzer are not properly combinable, and even if combined, fail to teach each limitation of the claimed invention. Lehtovirta et al. and Panossian are cited for limited purposes and do not overcome the shortcomings of Clarke et al. and Sulzer.

Applicants respectfully submit that independent claim 1 is in condition for allowance. Claims 3-22, 24 and 25 each depend from claim 1 and should be allowable for at least the reasons set forth above.

Early reconsideration and allowance of each of the pending claims are respectfully requested.

If the Examiner believes an interview, either telephonic or in person, will advance the prosecution of this matter, it is respectfully requested that the Examiner get in contact with the undersigned.

Respectfully submitted,



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